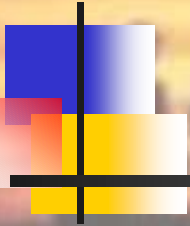


# James River Tributary Strategy Revision



## Middle James River

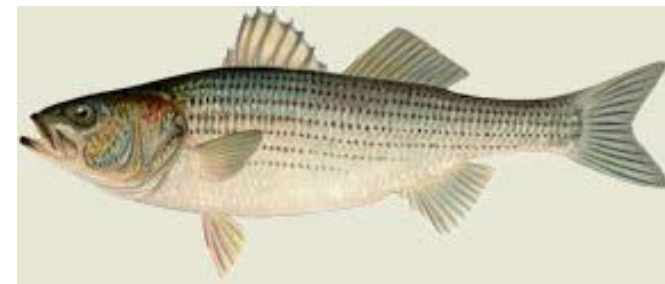
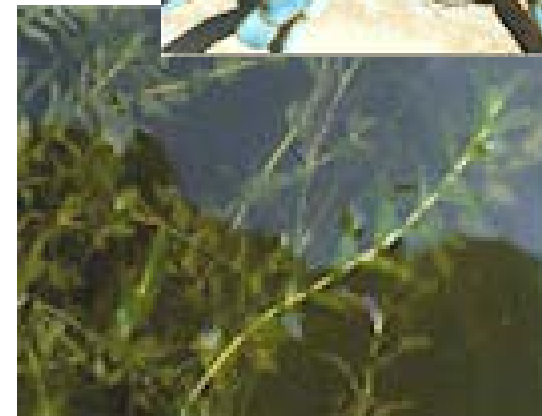
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Michael Bowman  
James River Regional Manager

June 25, 2003

# Purpose of Tributary Strategies

- Restore and protect aquatic habitat for living resources
- Reduce, and “cap” nutrient and sediment loads
- Identify control actions
  - Practical
  - Cost-effective
  - Equitable
- Develop stakeholder involvement and commitments



# Basis for Tributary Strategies

- 
- Chesapeake Bay 2000 Agreement
  - Actions can't start at water's edge
  - Each basin is different
  - Each basin affects Chesapeake Bay differently

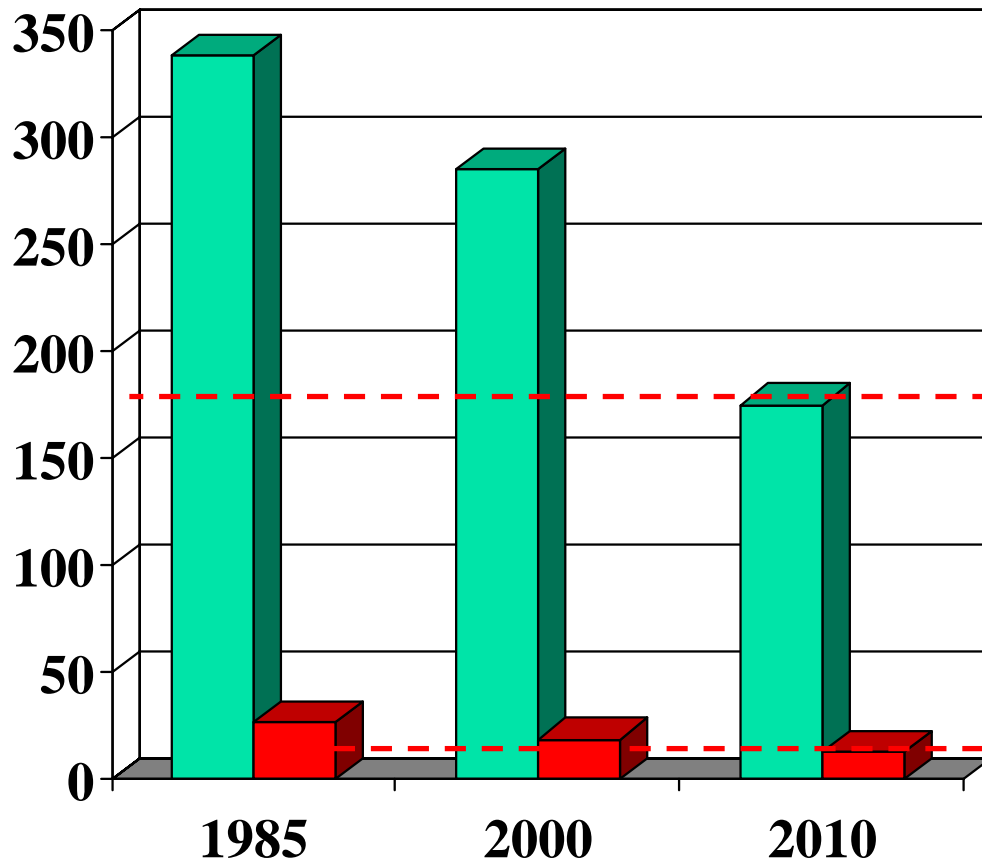


# Key Considerations for Revising Tributary Strategies

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- Existing strategies serve as springboard
- Wealth of Chesapeake Bay Program data
- Account for existing accomplishments
- Voluntary, cooperative approach
- Seek common agreement on what needs to be done
- Key principles:
  - Cost-effectiveness
  - Feasibility
  - Equity

# Bay-wide N & P Change 1985 - 2010



**Nitrogen**  
**Phosphorus**

**2010 Goal**

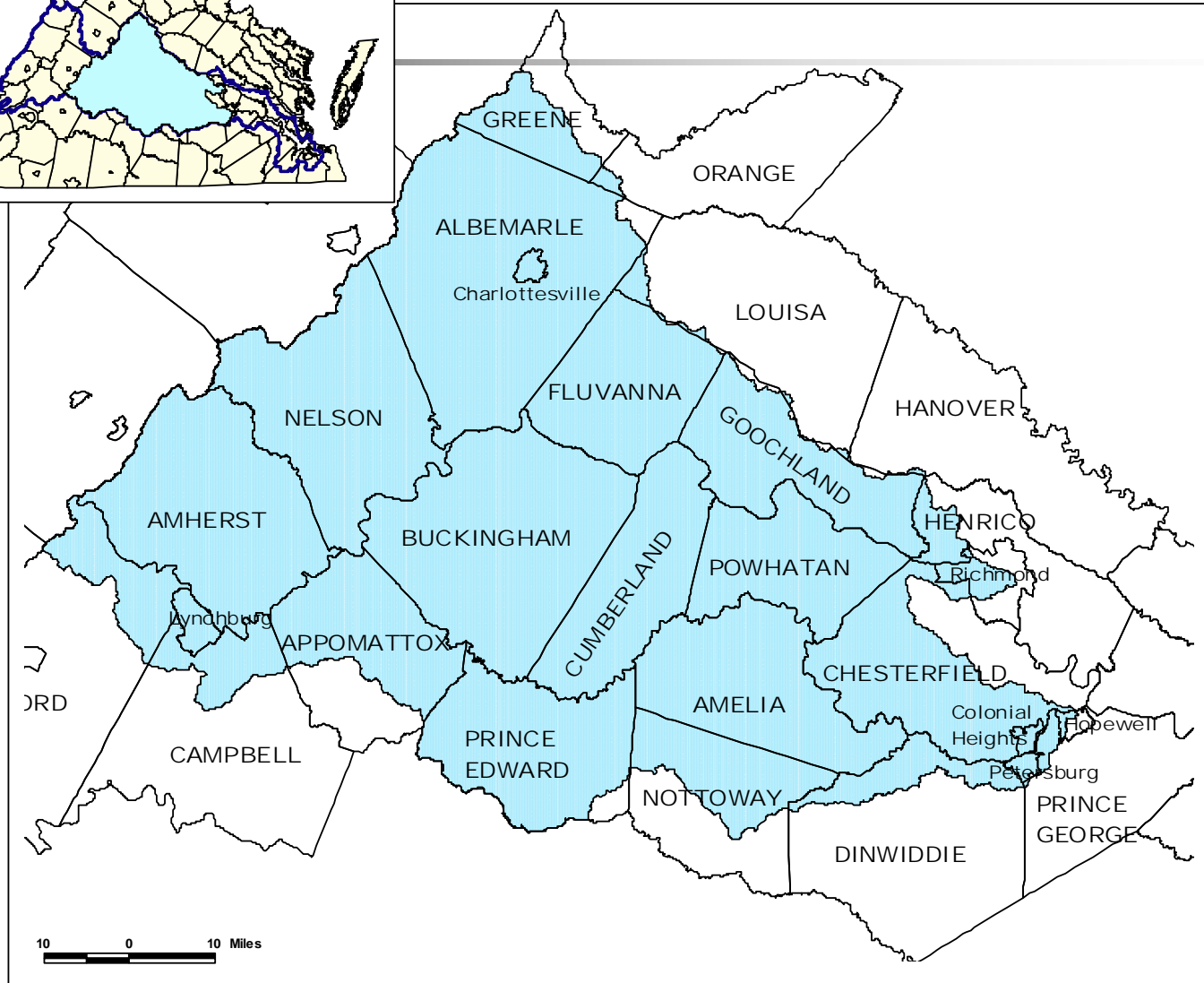
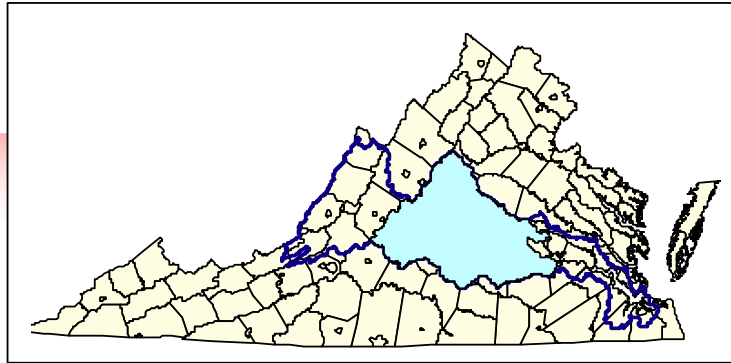
**175M lbs N/yr**

**12.8M lbs P/yr**

*\* In millions of pounds per year.*



# Piedmont James River Watershed





# James River “Snapshot”

	Middle James	James Basin
Length	~230 mi	350 mi
Drainage area	3,736 sq mi	10,236 sq mi
Counties & Cities	28	57
Population (2000)	500,583	2,604,246
Major tributaries	Appomattox, Hardware, Rivanna, Slate, Tye, Willis	

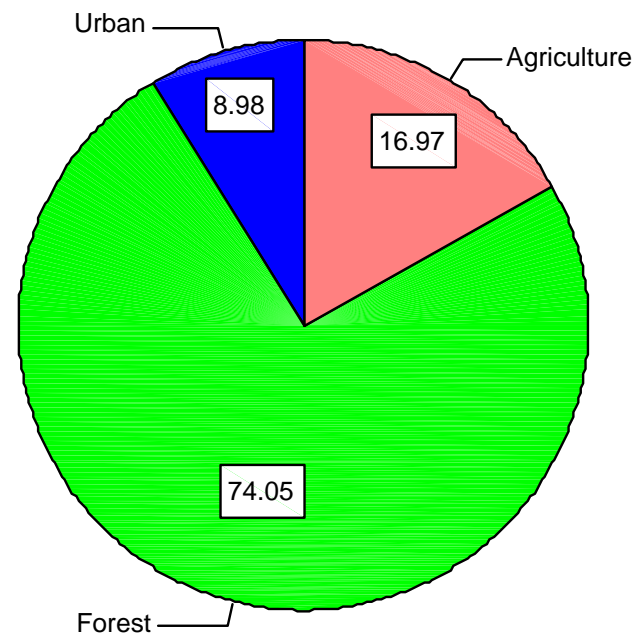


# Land Use

---

## Middle James

## James River Watershed





# Original Tributary Strategy Goals

- 9 % sediment reduction for the entire basin by 2010
- BNR/BNR equivalent for areas draining directly to tidal fresh by 2010
- Cap net nutrient loads to the lower estuary from all areas at 1996 levels
- Reassess goals in 2005





# Progress

---

- Nitrogen (M lb/year)

- 1985 Load: 46.0
- 2000 Load: 35.5 (-24%)
- 2010 Cap: 26.4 (-26%)

- Phosphorus (M lb/year)

- 1985 Load: 8.47
- 2000 Load: 5.69 (-33%)
- 2010 Cap: 3.41 (-40%)

- Sediment (M tons/year)

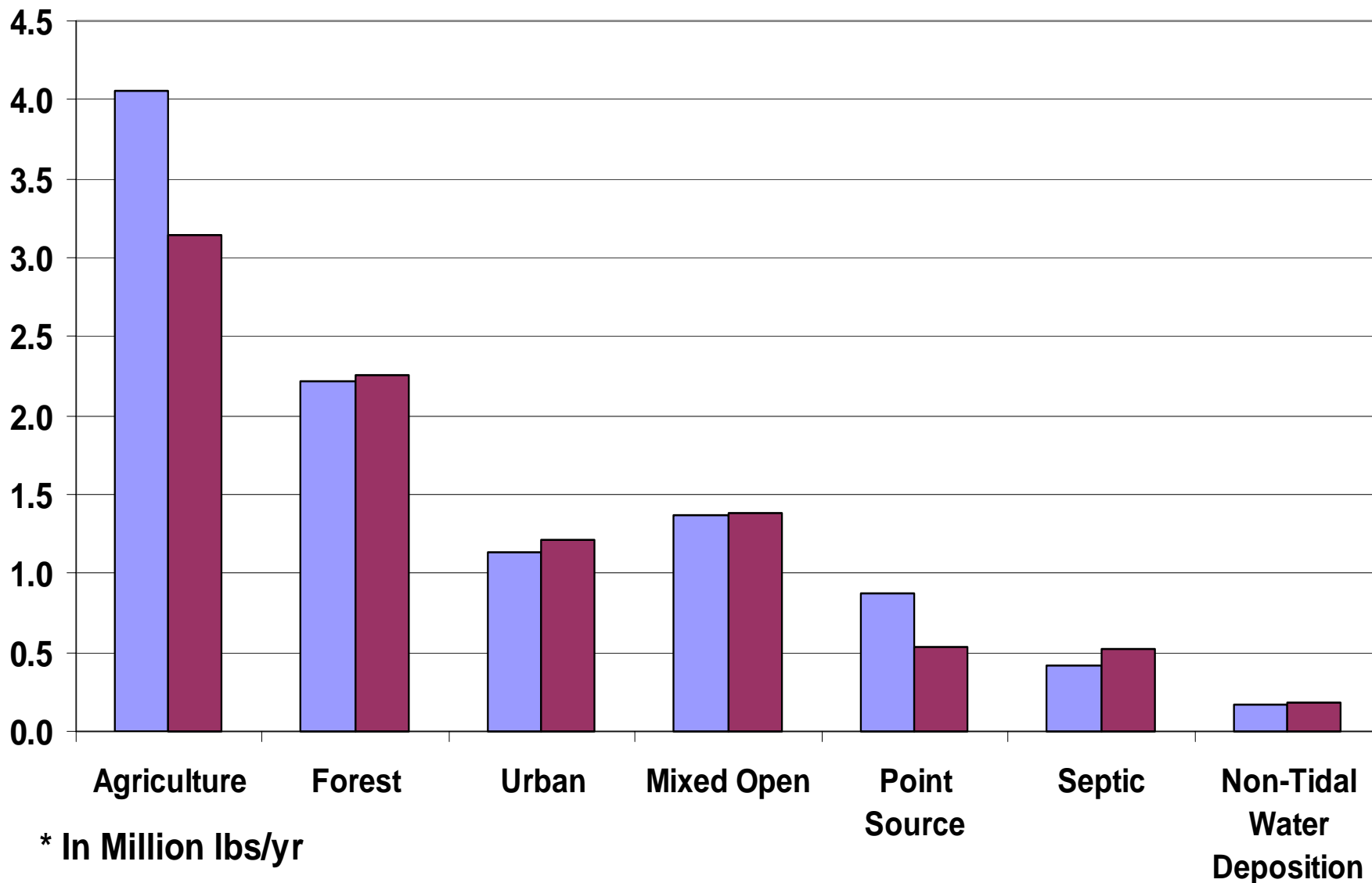
- 1985 Load: 1.27
- 2000 Load: 1.2 (-5%)
- 2010 Cap: 0.93 (-23%)



## Middle James River Basin Nitrogen Loadings by Source Catagory

1985

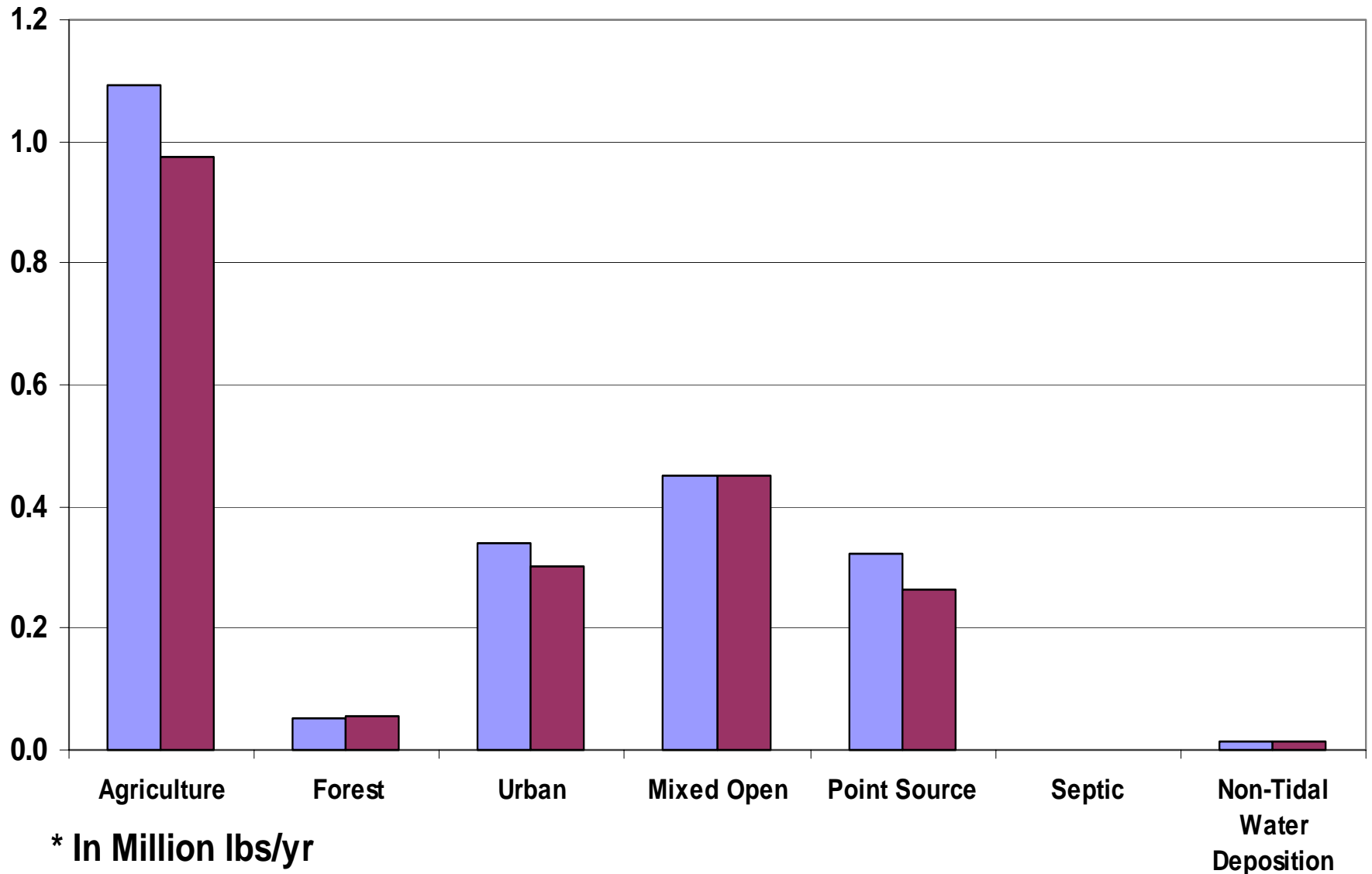
2000



## Middle James River Basin Phosphorus Loadings by Source Catagory

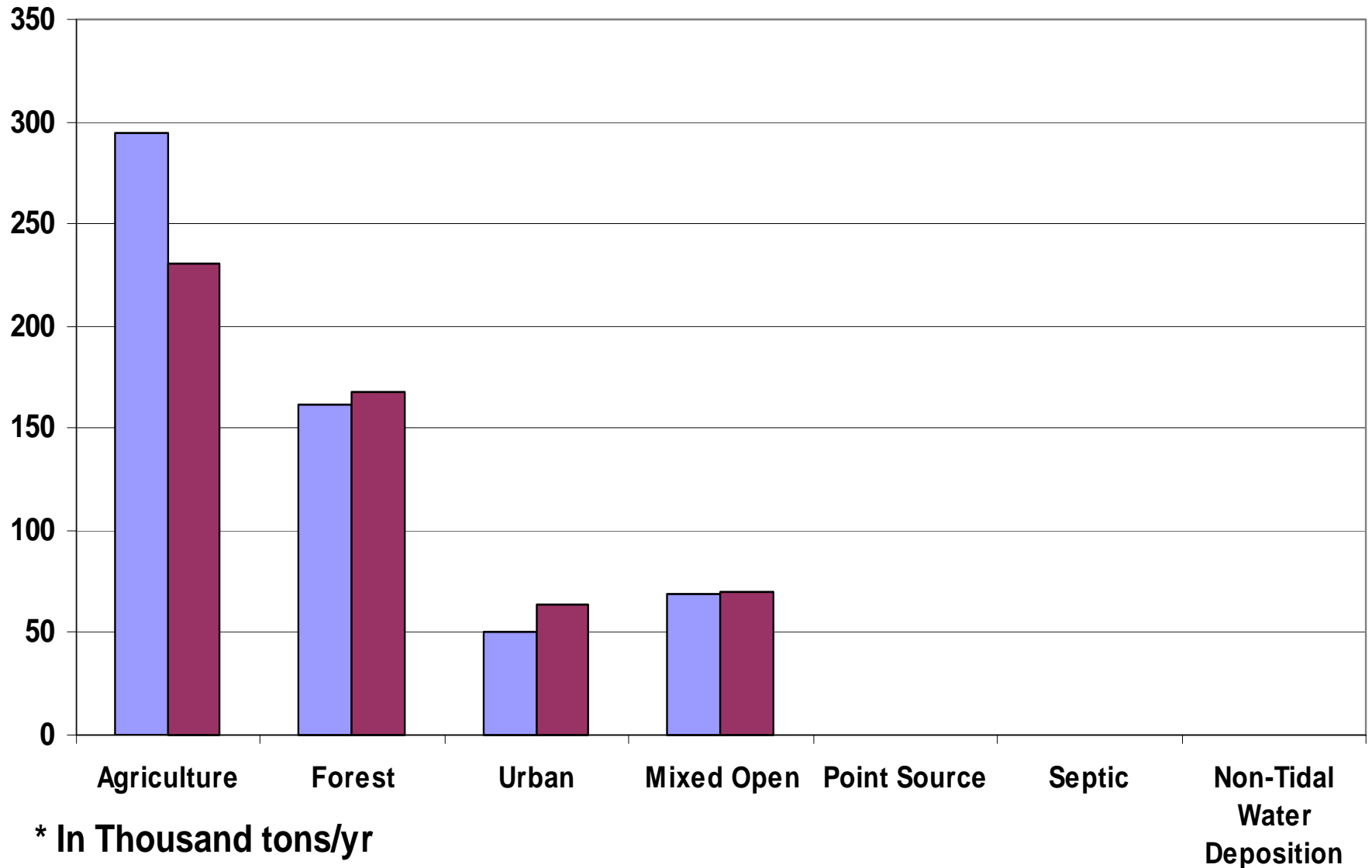
1985

2000

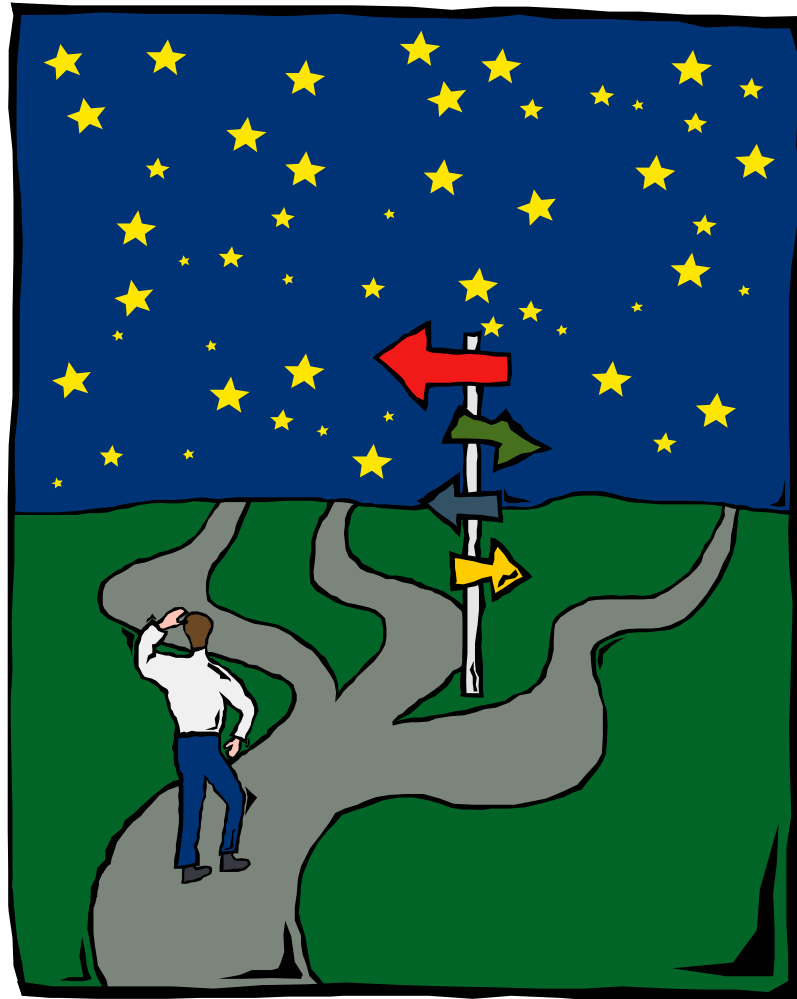


## Middle James River Basin Sediment Loadings by Source Catagory

1985 2000



# How Do We Get There From Here?





# Stakeholder Involvement

## *"Trib Strategy Teams" :*

- Local governments
- Planning district commissions
- Soil and water conservation districts
- Wastewater treatment facilities
- Conservation organizations
- Business interest groups
- Industry
- Citizens



# Stakeholder Involvement

## (cont'd)

- 
- State agencies
  - Federal agencies (land management)
  - Real estate associations
  - Homebuilder associations
  - Watermen
  - Marinas



# Middle James Tributary Team

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- Use existing structures such as:
  - Piedmont James River Roundtable
- Technical assistance and review
  - State, federal agencies
  - Roundtable workgroups

# Tributary Strategy Teams With Stakeholder Groups

## Potomac River

Team Leader: Marc Aveni  
Potomac Regional Manager  
maveni@dc.state.va.us  
Ph: (540) 347-6420

Shawn Smith  
CBLAD, Principal Planner  
Ph: (804) 371-0609

Stakeholder Group:  
Potomac Watershed Roundtable

## Rappahannock River

Team Leader: Matt Criblez  
York & Rappahannock Regional Manager  
mdcriblez@dc.state.va.us  
Ph: (804) 443-6752

Alexander Adams  
CBLAD, Senior Planner  
Ph: (804) 371-6222

Stakeholder Group:  
Rappahannock River Basin Commission

## Shenandoah River

Team Leader: Tamara Keeler  
Shenandoah Regional Manager  
Ph: (540) 332-9991  
tkeeler@dc.state.va.us

Stakeholder Group:  
Pure Water 2000

## York River

Team Leader: Matt Criblez  
York & Rappahannock Regional Manager  
mdcriblez@dc.state.va.us  
Ph: (804) 443-6752

Bob Ehrhart  
DEQ, Chesapeake Bay Program  
Ph: (804) 698-4466

Nancy Miller  
CBLAD, Senior Planner  
(804) 225-3441

Stakeholder Group:  
York Watershed Council

## Upper James River

Team Leader: Tamara Keeler  
Shenandoah Regional Manager  
Ph: (540) 332-9991  
tkeeler@dc.state.va.us

Bob Ehrhart  
DEQ - Chesapeake Bay Program  
Ph: (804) 698-4466

Stakeholder Group:  
Upper James River Conservation Roundtable

## Middle James River

Team Leader: Michael Bowman  
James Regional Manager  
Ph: (804) 527-4484  
mbowman@dc.state.va.us

Bob Ehrhart  
DEQ, Chesapeake Bay Program  
Ph: (804) 698-4466

Roberta Rhur  
CBLAD - Senior Planner  
Ph: (804) 786-1795

Stakeholder Group:  
Piedmont James River Roundtable

## Lower James River

Team Leader: Ernie Brown  
Albemarle, Chowan & Coastal Regional Manager  
ebrown@dc.state.va.us  
Ph: (757) 925-2468

Brad Belo  
CBLAD, Senior Planner  
Ph: (804) 371-7500

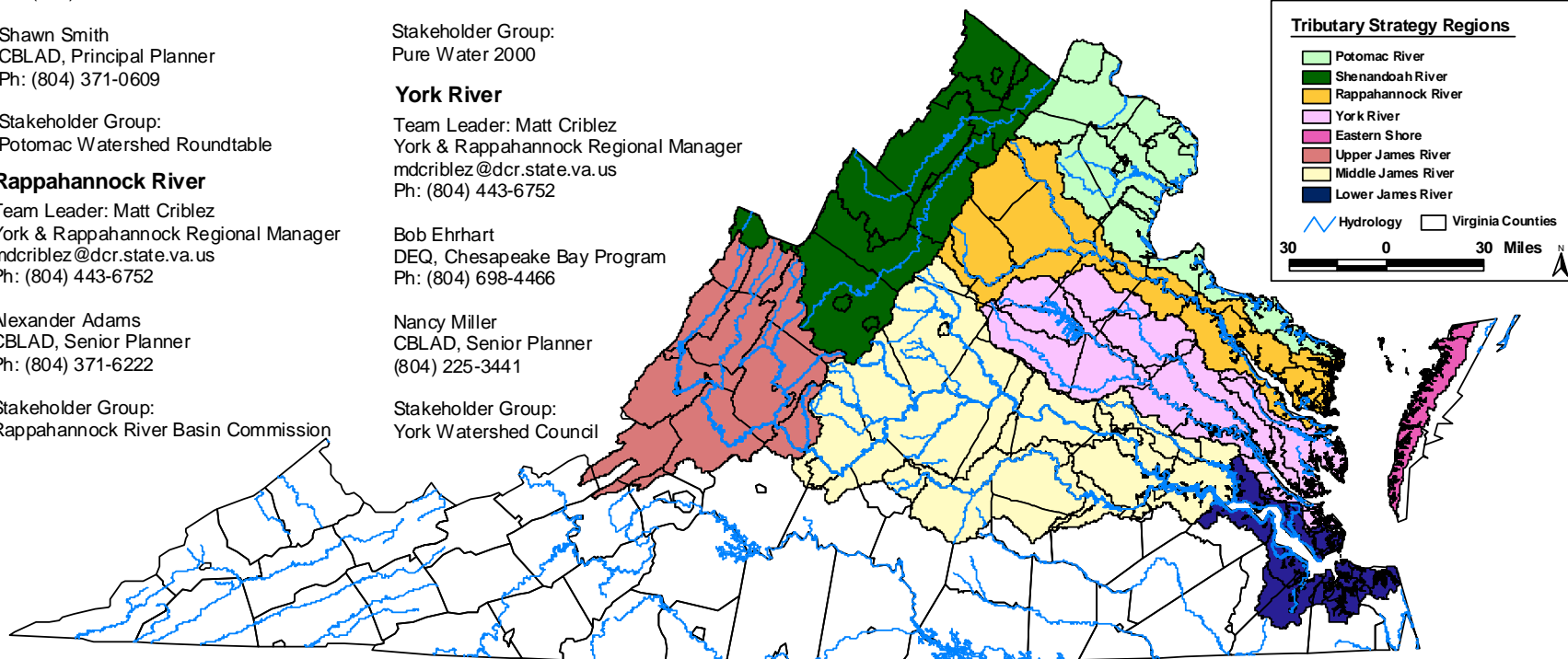
Stakeholder Group:  
Hampton Roads Lower James River Roundtable

## Eastern Shore

Team Leader: Ernie Brown  
Albemarle, Chowan & Coastal Regional Manager  
ebrown@dc.state.va.us  
Ph: (757) 925-2468

Shawn Smith  
CBLAD, Principal Planner  
Ph: (804) 371-0609

Stakeholder Group:  
Eastern Shore Watersheds Network





# Process: *Local* Planning

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- Basin-specific process
- Local flexibility in meeting goals
- Trib team will help define process & carry out work
- Need to identify and build on past success
  - e.g. Roundtable, SWCD accomplishments
- Continuing refinement of trib strategy to reflect new actions & commitments



# *Local* Planning

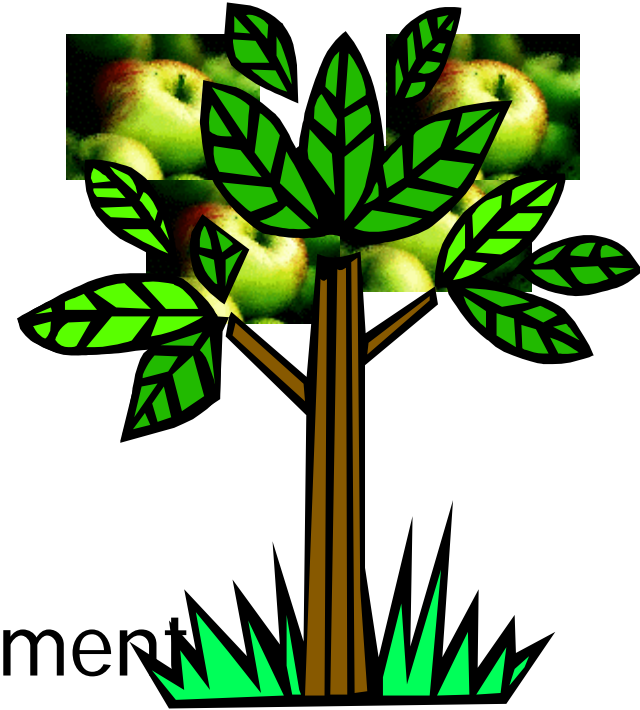
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- Expand participation to ultimately include all types of land users
  - e.g. suburban homeowners – urban nutrient management
- Accent on developing very local buy-in
- Prominence of local governments
  - Land Use
  - Comprehensive Planning
- Public comment period



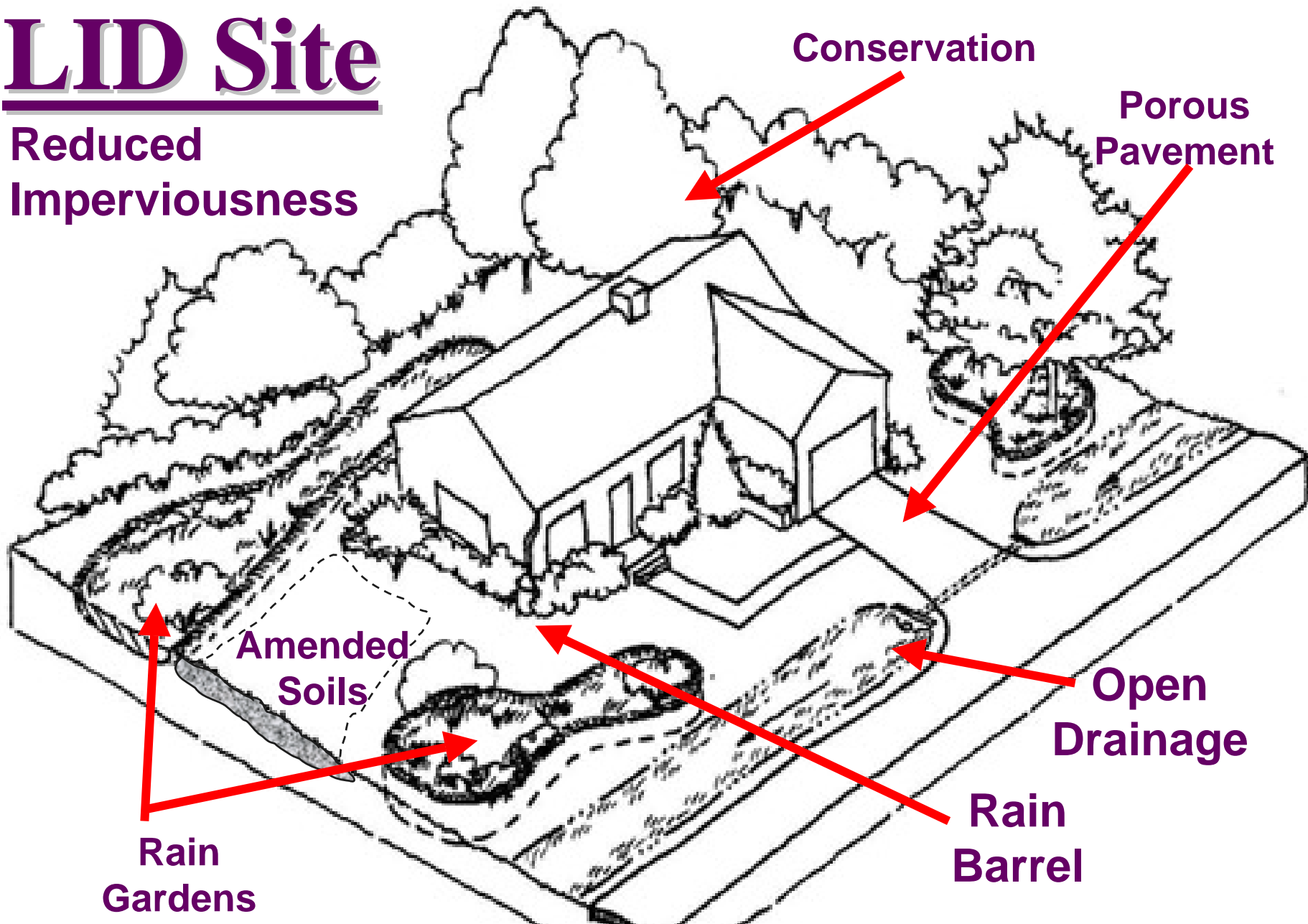
# Where Do We Look for Reductions?

- Agricultural practices
- Waste-water treatment
- Urban/suburban storm water
- Land use, low impact development
- Educating the public



# LID Site

Reduced  
Imperviousness





# How Do We Look for Reductions?

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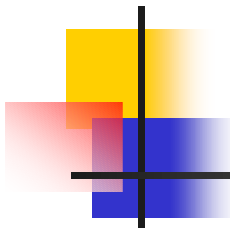
- Locally with existing resources
- Locally requiring new resources
- Statewide initiatives



# What Tools Do We Have?

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- Loads by source categories
- Extensive BMP information
- Use “scenario builder” to explore options
- Chesapeake Bay Watershed Model
- Technical expertise of Bay Program



# What's Included in the Revised Strategies?

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- A “snapshot” of the basin
- Actions to reduce loads to meet goal
- Discussion of funding needs and options
- Tracking method for loads, reductions and cap
- Phased strategy implementation



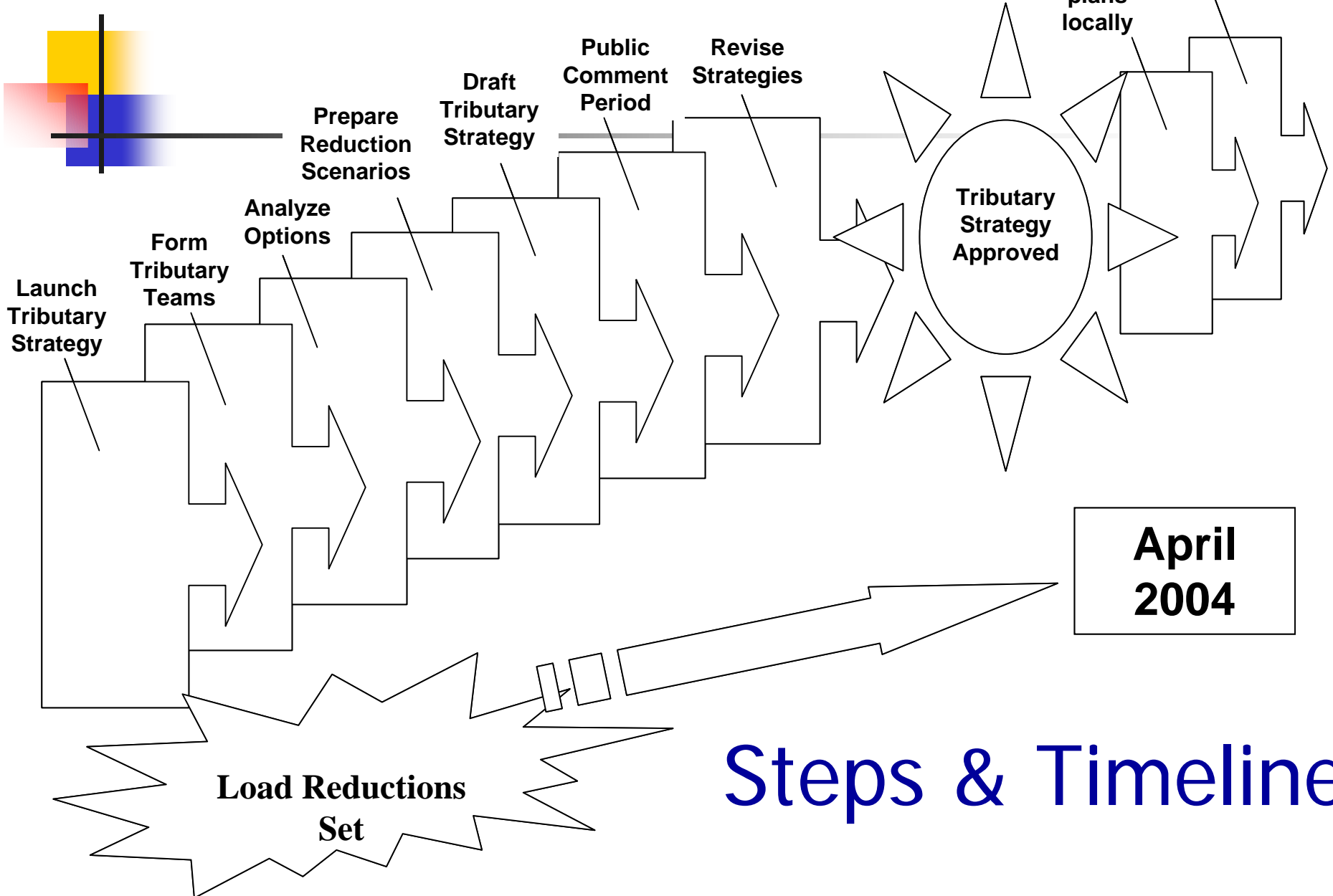
# What's Included?

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- Status/Progress of N, P, sediment reductions
  - Successful reductions thus far
- Specific implementation strategies
  - BMPs – what/where
  - Local government initiatives – e.g. LID
  - Point Source upgrades
  - Watershed Planning



# Tributary Strategy Planning





# Proposed Timeline

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- Establish Tributary Team: July 2003
- Tributary Team reviews allocations and develops scenarios: July-November 2003
- Draft Tributary Strategy: Nov/Dec 2003
- Public meetings: January/February 2004
- Revise Tributary Strategy: March/April 2004
- Deliver completed Tributary Strategy: April 2004



# 2004 - 2010

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- Continuing refinement of Tributary Strategy
- Dynamic document
  - Implement existing programs, projects
  - Refine practices, costs, funding
  - Identify and implement new/unique/innovative programs and practices
  - Marketing strategy to engage new array of stakeholders



# What is the Next Step?

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- Establish a diverse, *active* Tributary Team
  - Team members that represent all sectors and areas of the Middle James basin
- Tributary Team meeting – Mid-July
- Need *commitment* by Team members
  - Revisions on *very* aggressive schedule
  - *Much* work to do
- Trib Team to conduct as much work as possible via email, conference calls, etc.
  - Let's use our time to do the work, not travel



# Questions ???

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Michael Bowman

James River Regional Manager

[mbowman@dcr.state.va.us](mailto:mbowman@dcr.state.va.us)

804-527-4481

Amber Foster

James River

Watershed Field Coordinator

[amfoster@dcr.state.va.us](mailto:amfoster@dcr.state.va.us)

804-527-4217

